

Fig.5

PROTOCOL CHANNEL MESSAGES

| 0 | |
|----|---------------|
| 2 | E |
| 4 | |
| 9 | |
| | <u>a</u> |
| 2 | క్ర |
| | ш |
| 12 | S |
| _ | 7 |
| 1 | " |
| 16 | SOO |
| 18 | овт |
| 20 | SRC DEST PORT |
| 22 | |
| 24 | NXT |
| 56 | RESERVED |
| 88 | - 4 × |
| ., | _ a_ |
| 30 | OP |

0

8 10

BC/MC PORTBITMAP 12

9

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54

8

78 RESERVED 30

| 30 28 26 24 22 20 18 16 14 U RES NNTAGGED PORTBITMAP/S |
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| 80 28 26 24 22 : |
| 80 28 26 24 22 RES |
| 80 28 26 24 22 RES |
| 80 28 26 24 22 RES |
| 30 28 26 24 22 RES |
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| 30 28 RES |
| 30 28 RES |
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| |

| 10 8 6 4 2 0 | TIME STAMP |
|--------------|-------------|
| 12 | |
| 14 | |
| 91 | |
| 8 | |
| 20 | ES |
| 22 | CPU OPCODES |
| 24 | CPU |
| 26 | |
| 28 | |
| 30 | |

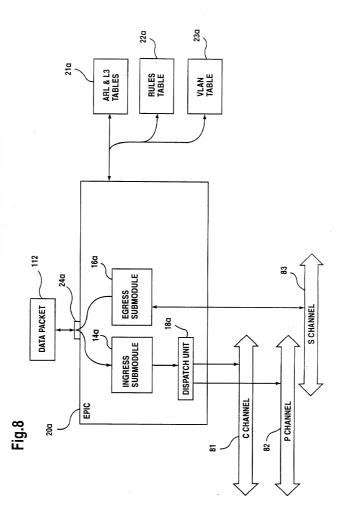
Fig.6

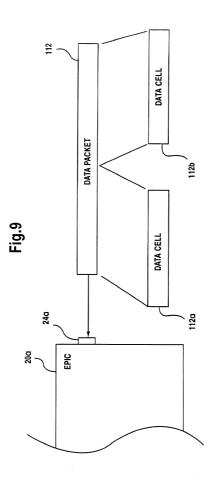
| GES |
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| MESSA |
| HANNE |
| BAND |
| SIDE |

| 2 0 | CODE COS 0 | | |
|---|-------------------------------------|---------|------|
| 4 | ш П 22 | | |
| 9 | | 1 | |
| 8 | - | | |
| 10 | DATA LEN | | |
| 12 | 0 | | |
| 4 | _ | SS | Æ |
| 16 | SRC PORT | ADDRESS | DATA |
| 8 | | | |
| 20 | . NO | | |
| 22 | DEST PORT/ DESTINATION DEV ID | | |
| 24 22 20 18 16 14 12 10 8 | DES DES DEV | | |
| 30 28 26 24 | ш | | |
| 30 28 | OPCODE | | |
| 30 | | | |

Fig.7 PRIOR ART

| LAYER SEVEN- APPLICATION |
|-----------------------------|
| LAYER SIX PRESENTATION |
| LAYER FIVE- SESSION |
| LAYER FOUR- TRANSPORT |
| LAYER THREE- NETWORK |
| LAYER TWO- DATA LINK |
| LAYER ONE- PHYSICAL |





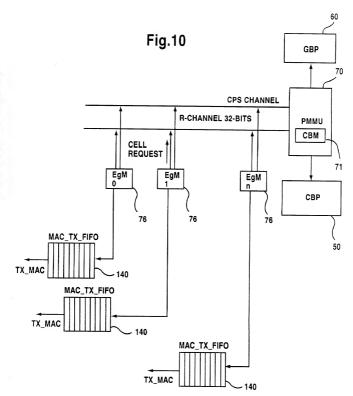


Fig.11

| LINE 0 | CELL_DATA (10-27) BYTES | CELL_DATA (28-45) BYTES | CELL_DATA (46-63) BYTES |
|--------|-------------------------|-------------------------|-------------------------|
| 1 | 1 | † | † |
| LINE 0 | LINE 1 | LINE 2 | LINE 3 |

Fig.12

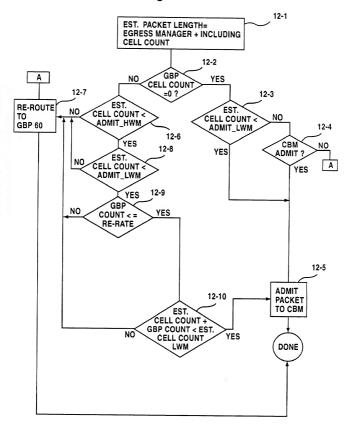
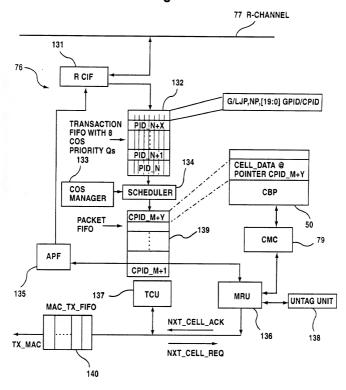


Fig.13



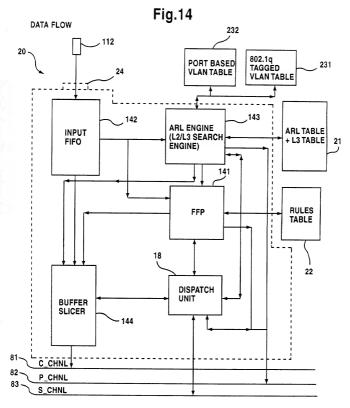
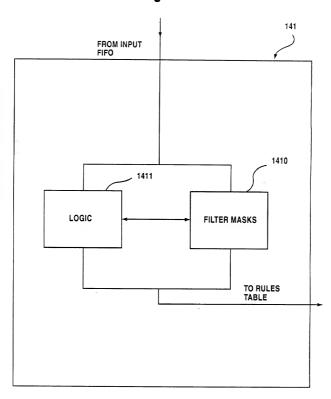


Fig.15



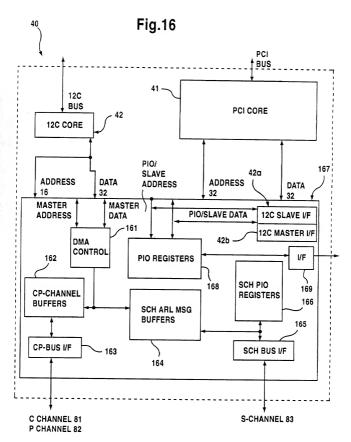


Fig.17

FFP PROGRAMMING FLOW CHART

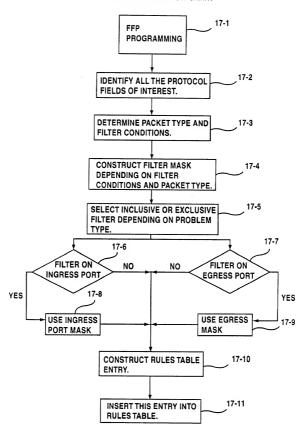


Fig.18

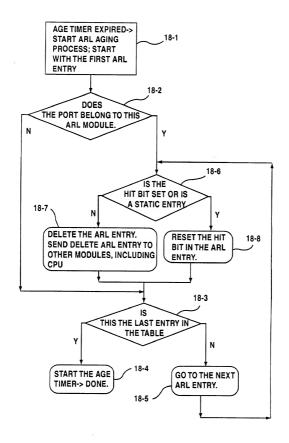
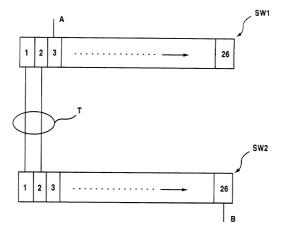
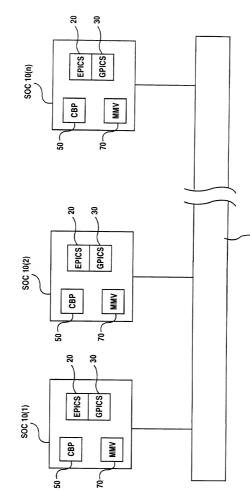


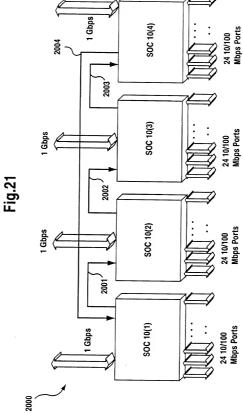
Fig.19







INTERSTACK CONNECTION I



. .

Fig.22

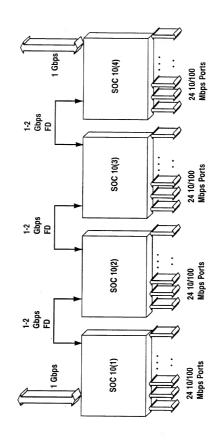


Fig.23

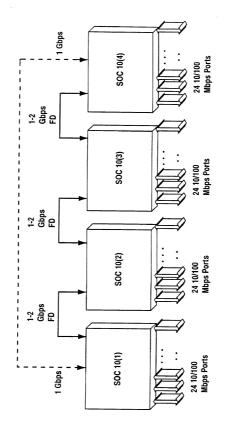


Fig.24A

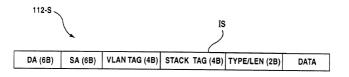


Fig.24B

| STACK | SRC | SRC | SRC | DST_ | DST | DST | PFM | M | MD | Res |
|-------|------|------|------|------|------|------|------|----|----|-----|
| COUNT | T | TGID | RTAG | T - | TGID | RTAG | (2b) | | | (9) |
| (5b) | (1b) | (3b) | (3b) | (1b) | | (3b) | () | (, | (, | (0) |

Fig.25

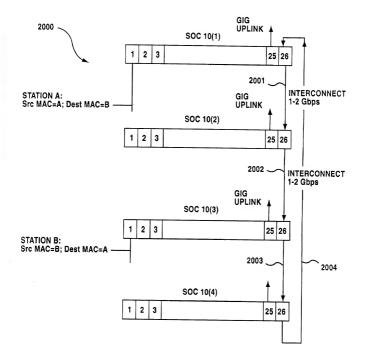


Fig.26

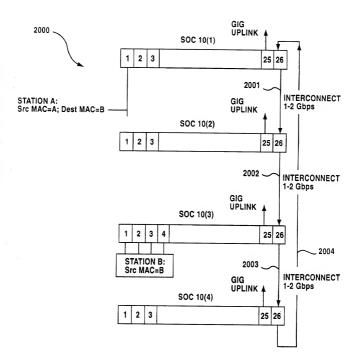


Fig.27A

| PORT NUMBER | MAC ADDRESS | VLAN ID | Т | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 1 | . А | 1 | 0 | х | х |
| 26 | В | 1 | 1 | 2 | 2 |

Fig.27B

| PORT NUMBER | MAC ADDRESS | VLAN ID | Т | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 26 | Α | 1 | 0 | Х | Х |
| 26 | В | 1 | 1 | 2 | 2 |

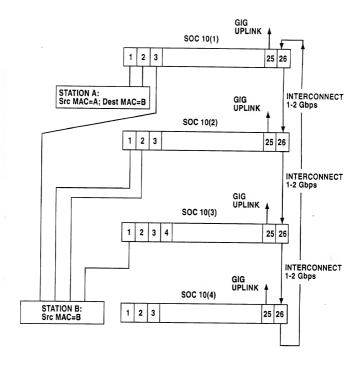
Fig.27C

| PORT NUMBER | MAC ADDRESS | VLAN ID | Т | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 26 | Α | 1 | 0 | х | Х |
| 1 | В | 1 | 1 | 2 | 2 |

Fig.27D

| PORT NUMBER | MAC ADDRESS | VLAN ID | Т | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 26 | Α | 1 | 0 | Х | Х |
| 26 | В | 1 | 1 | 2 | 2 |

Fig.28





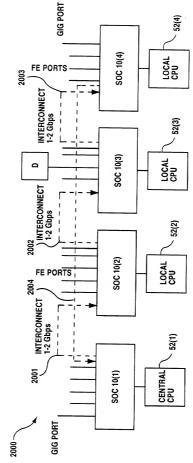


Fig.30

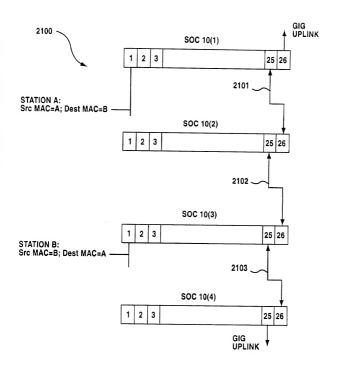


Fig.31

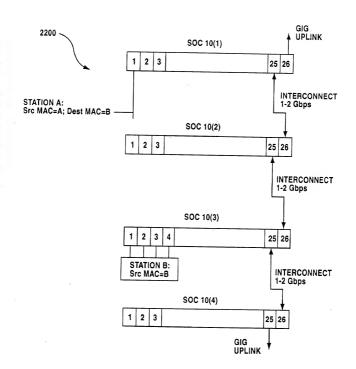


Fig.32A

| PORT NUMBER | MAC ADDRESS | VLAN ID | T | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 1 | A | 1 | 0 | х | Х |
| 25 | В | 1 | 1 | 2 | 2 |

Fig.32B

| PORT NUMBER | MAC ADDRESS | VLAN ID | Т | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 26 | A | 1 | 0 | Х | Х |
| 25 | В | 1 | 1 | 2 | 2 |

Fig.32C

| PORT NUMBER | MAC ADDRESS | VLAN ID | Т | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 26 | Α | 1 | 0 | Х | Х |
| 1 | В | 1 | 1 | 2 | 2 |

Fig.32D

| PORT NUMBER | MAC ADDRESS | VLAN ID | Т | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 26 | Α | 1 | 0 | Х | X |
| | | | | | |

Fig.33

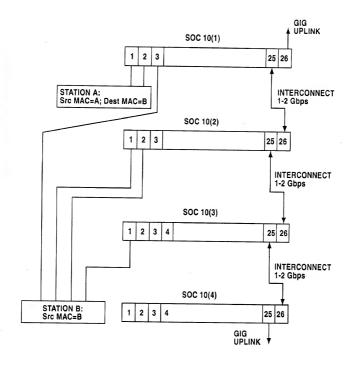


Fig.34A

| PORT NUMBER | MAC ADDRESS | VLAN ID | T | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 1 | A | 1 | 1 | 1 | 1 |
| 25 | В | 1 | 1 | 2 | 2 |

Fig.34B

| PORT NUMBER | MAC ADDRESS | VLAN ID | T | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 26 | Α | 1 | 1 | 1 | 1 |
| 25 | В | 1 | 1 | 2 | 2 |

Fig.34C

| PORT NUMBER | MAC ADDRESS | VLAN ID | T | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 26 | A | 1 | 1 | 1 | 1 |
| 1 | В | 1 | 1 | 2 | 2 |

Fig.34D

| PORT NUMBER | MAC ADDRESS | VLAN ID | Т | TGID | RTAG |
|----------------|----------------|---------|---|------|------|
| 26 | Α | 1 | 1 | 1 | 1 |
| | | | | | |

Fig.35

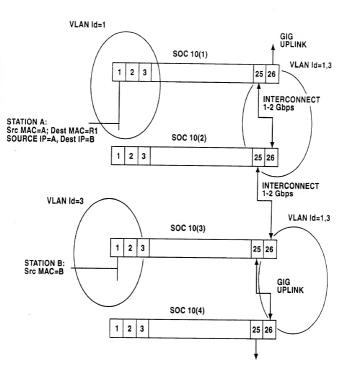


Fig.36

TRUNK GROUP TABLE FOR SW1-

| TGID | TPO | TP1 | TP2 | TP3 | TP4 | TP5 | TP6 | 707 | TG |
|------|-----|-----|-----|-----|------|-----|-----|-----|------|
| | | | ''- | | 11-4 | 175 | 170 | TP7 | SIZE |
| 2 | 25 | 25 | 25 | 25 | Х | Х | Χ | Х | 4 |

TRUNK GROUP TABLE FOR SW2:

| TGID | TP0 | TP1 | TP2 | TP3 | TP4 | TP5 | TP6 | TP7 | TG SIZE |
|------|-----|-----|-----|-----|-----|-----|-----|-----|------------|
| 2 | 25 | 25 | 25 | 25 | х | X | Х | Х | 4 |

TRUNK GROUP TABLE FOR SW3.

| THORK GI | OUF IAL | LE FUR | 2442: | | | | | | |
|----------|---------|--------|-------|-----|-----|-----|-----|-----|------------|
| TGID | TP0 | TP1 | TP2 | TP3 | TP4 | TP5 | TP6 | TP7 | TG SIZE |
| 2 | 1 | 2 | 3 | 4 | Х | X | Х | х | 4 |

TRUNK GROUP TABLE FOR SW4.

| | JOP IAL | LE FUN | 3114: | | | | | | |
|------|-----------|--------|--------------|-----|----------------------|--------------------------|------------------------------|----------------------------------|--|
| TGID | TP0 | TP1 | TP2 | TP3 | TP4 | TP5 | TDS | TD7 | TG |
| | | | | • | | | | 117 | SIZE |
| ^ | | | | | | | | | SIZE |
| 2 | 26 | 26 | 26 | 26 | X | X | l X | X | 4 |
| | TGID 2 | | TGID TP0 TP1 | | TGID TP0 TP1 TP2 TP3 | TGID TP0 TP1 TP2 TP3 TP4 | TGID TP0 TP1 TP2 TP3 TP4 TP5 | TGID TP0 TP1 TP2 TP3 TP4 TP5 TP6 | TGID TP0 TP1 TP2 TP3 TP4 TP5 TP6 TP7 |

Fig.37

TRUNK GROUP TABLE FOR SW1:

| TGID | TP0 | TP1 | TP2 | TP3 | TP4 | TP5 | TP6 | TP7 | TG |
|------|-----|-----|-----|-----|-----|-----|-----|-----|------|
| 1 | 1 | 2 | X | X | X | X | X | X | SIZE |
| 2 | 25 | 25 | 25 | 3 | X | X | X | x | 4 |

TRUNK GROUP TABLE FOR SW2:

| TGID | TP0 | TP1 | TP2 | TP3 | TP4 | TP5 | TP6 | TP7 | TG SIZE |
|------|-----|-----|-----|-----|-----|-----|-----|-----|------------|
| 1 | 26 | 26 | Х | Х | X | X | X | Y | 2 |
| 2 | 25 | 1 | 2 | 26 | X | X | X | X | 4 |

TRUNK GROUP TABLE FOR SW3:

| | | · · · · · | | | | | | |
|-----|-----|---------------|---------------------|---|---|--|---|---|
| TP0 | TP1 | TP2 | TP3 | TP4 | TP5 | TP6 | TP7 | TG |
| | | | | | | | | SIZE |
| 26 | 26 | X | X | X | X | X | X | 2 |
| 1 | 26 | 26 | 26 | X | X | X | Y | 4 |
| | | TP0 TP1 26 26 | TP0 TP1 TP2 26 26 X | TP0 TP1 TP2 TP3 26 26 X X | TP0 TP1 TP2 TP3 TP4 26 26 X X X | TP0 TP1 TP2 TP3 TP4 TP5 26 26 X X X X X TP4 TP5 | TP0 TP1 TP2 TP3 TP4 TP5 TP6 26 26 X X X X X X 1 26 26 X X X X X | 26 26 X X X X X X X X X X X X X X X X X |

TRUNK GROUP TABLE FOR SW4:

| TGID | TP0 | TP1 | TP2 | TP3 | TP4 | TP5 | TP6 | TP7 | TG SIZE |
|------|-----|-----|-----|-----|-----|-----|-----|-----|------------|
| 1 | 26 | 26 | Х | X | X | X | X | X | 2 |
| 2 | 26 | 26 | 26 | 26 | X | X | X | x | 4 |

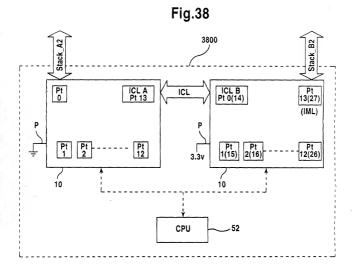


Fig.39

| | 30 | 28 | 26 | 24 | 22 | 20 | 18 | 16 | 14 | 12 | 10 | 8 | 6 | 4 | 2 | 0 |
|-----|-----------------|----|----|----|------|-----|-------------|----|----|----|------|-----|---|------|-----|---|
| | OPCODE DE | | | | ST P | ORT | RT SRC PORT | | | | DATA | LEN | E | CODE | cos | С |
| 1 | S R PORT BITMAP | | | | | | | | | | | | | | | |
| ([| DATA | | | | | | | | | | | | | | | |
|)_ | | | | | | | | | | | | | | | | |
| SOL | JRCI | E | | | | | | | | | | | | | | |

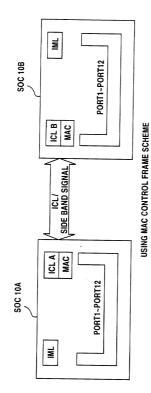


Fig. 40

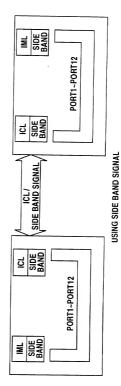
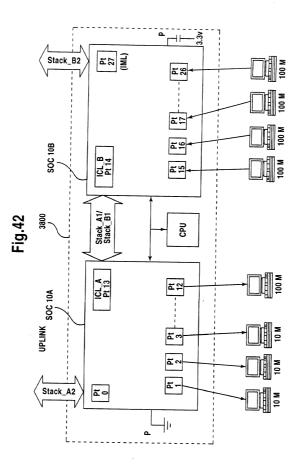
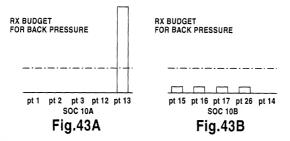
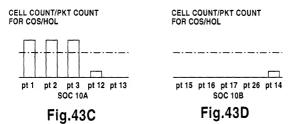
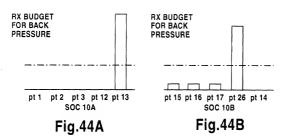


Fig.41









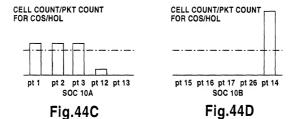


Fig.45

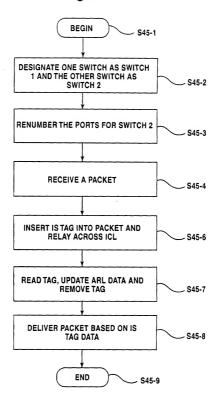


Fig.46

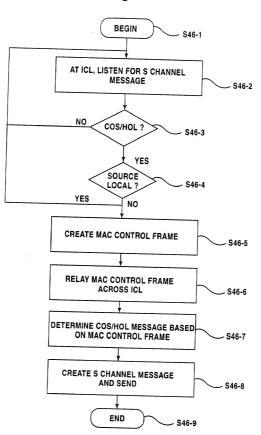


Fig.47

